



CITY OF MANCHESTER, NEW HAMPSHIRE

INDUSTRIAL PRETREATMENT PROGRAM ANNUAL REPORT

**JUNE 1, 2018
THROUGH
MAY 31, 2019**

**Prepared by:
Department of Public Works/ Environmental Protection Division
Christopher J. Crowley**

Kevin A. Sheppard, P.E.
Public Works Director

Timothy J. Clougherty
Deputy Public Works Director

Frederick J. McNeill, P.E.
Chief Engineer



Commission
Toni Pappas
Patrick Robinson
James Burkush
Trixie Vazquez
Armand Forest

CITY OF MANCHESTER
Department of Public Works
Environmental Protection Division

July 30, 2019

No. 19-36-MO

Justin Pimpare
EPA New England
5 Post Office Square
Suite 100
OEP 06-3
Boston, MA 02109-3912

Dear Mr. Pimpare,

On behalf of the City of Manchester, Environmental Protection Division (EPD), I am submitting the 2018/2019 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2018 to May 31, 2019. Also, included is EPA's revised Compliance Status Work Sheet and the 2018/2019 annual report for the Town of Londonderry, New Hampshire.

In addition to the IPP activities, this report also details sampling results for the Wastewater Treatment Plant's Influent, Effluent, and Sludge, as required in Section Five Appendices F, G, and H.

If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley
Pretreatment Supervisor

Copy / Enclosure:

Alexis Rastorguyeff, P.E., SE III, NHDES, Concord, NH
Kevin A. Sheppard, P.E., Public Works Director
Frederick J. McNeill, P.E., Chief Engineer
Robert Robinson, P.E., Plant Superintendent
Jeremy Bouvier, P.E., Environmental Permits Coordinator

Kevin A. Sheppard, P.E.
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Department of Public Works
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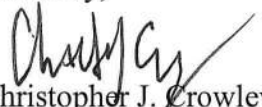
Alexis Rastorguyeff, PE, SE III
NHDES, Industrial Pretreatment Supervisor
Wastewater Engineering Bureau
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

Dear Mr. Rastorguyeff,

On behalf of the City of Manchester, Environmental Protection Division (EPD), I am submitting the 2018/2019 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2018 to May 31, 2019. Also attached is the annual report for the Town of Londonderry, New Hampshire.

If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,


Christopher J. Crowley
Pretreatment Supervisor

Copy / Enclosure:

Jay Pimpare, EPA, Region 1 Pretreatment Coordinator
Kevin A. Sheppard, P.E., Public Works Director
Frederick J. McNeill, P.E., Chief Engineer
Robert J. Robinson, P.E., Plant Superintendent
Jeremy Bouvier, P.E., Environmental Permits Coordinator

EPA Region 1-Annual Pretreatment Report Summary Sheet June 1, 2018 to May 31, 2019

POTW Name: City of Manchester, NH. Environmental Protection Division EPD

NPDES Permit #: NH0100447

Pretreatment Report Period Start Date: June 1, 2018

Pretreatment Report Period End Date: May 31, 2019

of Significant Industrial Users (SIUs): 16

of SIUs Without Control Mechanisms: 0

of SIUs not Inspected: 0

of SIUs not Sampled: 0

of SIUs in Significant Noncompliance (SNC) with Pretreatment Standards: 1

of SIUs in SNC with Reporting Requirements: 1

of SIUs in SNC with Pretreatment Compliance Schedule: 0

of SIUs in SNC Published in Newspaper: 1

of SIUs with Compliance Schedules: 0

of Violation Notices Issued to SIUs: 1

of Administrative Orders Issued to SIUs: 0

of Civil Suits Filed Against SIUs: 0

of Criminal Suits Filed Against SIUs: 0

of Categorical Industrial Users (CIUs): 5

of CIUs in SNC: 0

Penalties

Total Dollar Amount of Penalties Collected

\$ 0

of IUs from which Penalties have been collected:

0

Local Limits

Date of Most Recent Technical Evaluation of Local Limits:

9/25/2015- Part of NPDES Permit Review Process

Date of Most Recent Adoption of Technically Based Local Limits:

August 5, 1997

Local Limits

Below is listed the maximum concentrations of chemicals allowed in the effluent discharge of any Manchester industry, commercial, business or residential establishment.

| Pollutant / Limit (mg/l) | Design Plant Flow 34 MGD MAHL (lb/day) |
|-------------------------------|---|
| • Copper - 4.55 mg/l | - 1,290.26 lb/day |
| • Cyanide (total) - 2.86 mg/l | - 810.98 lb/day |
| • Lead - 0.94 mg/l | - 266.55 lb/day |
| • Mercury - 0.023 mg/l | - 6.52 lb/day |
| • Silver - 0.90 mg/l | - 255.20 lb/day |
| • Zinc - 10.42 mg/l | - 2,954.69 lb/day |

Screening Levels

Below is a list of acceptable maximum concentrations for certain chemicals. If one of these levels is exceeded by any industry, commercial establishment, business or residential unit then the situation causing the excess contaminant will be reviewed by EPD's monitoring staff. A permit will be issued that reflects the negotiated allowable discharge concentration for that particular parameter. Certain current permits have limits that are above these screening limits, but other safeguards are written into these specific individual permits to offset the increased pollutant discharge.

| | |
|--|---------------------|
| • Benzene - 0.13 mg/l | - 36.86 lb/day |
| • BOD - 350 mg/l | - 99,246.00 lb/day |
| • Carbon Disulfide - 0.06 mg/l | - 17.01 lb/day |
| • Chlorine - 1,500 mg/l | - 425,340.00 lb/day |
| • Chloroform - 0.41 mg/l | - 116.26 lb/day |
| • 1,2 Dichloroethylene - 0.28 mg/l | - 79.40 lb/day |
| • Sulfide - 1.0 mg/l | - 283.56 lb/day |
| • Sulfate - 150 mg/l | - 42,534.00 lb/day |
| • Sulfate - 1,500 mg/l (for type II concrete structures) | - 425,340.00 lb/day |
| • Sulfite - 280 mg/l | - 79,396.80 lb/day |
| • Suspended Solids - 350 mg/l | - 99,246.00 lb/day |
| • Tetrachloroethylene - 0.53 mg/l | - 150.28 lb/day |
| • 1,1,1 trichloroethane - 1.55 mg/l | - 439.52 lb/day |
| • Trichloroethene - 0.71 mg/l | - 201.33 lb/day |
| • Oil & Grease - 100 mg/l (Petroleum or mineral origin, Method 1664 HEM/SGT) | - 28,356.00 lb/day |
| • Oil & Grease - 350 mg/l (Animal & vegetable origin, Method 1664 HEM) | - 99,246.00 lb/day |

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2018 to May 31, 2019
IPP Annual Report

Information Required By EPA

Section One

An updated list of all industrial users by category, as set forth in 40 CFR 403.8(f)(2)(i), indicating compliance or noncompliance with the following:

Part 1 - 1 Compliance with Baseline Monitoring Requirements and 90-Day Compliance Reports for Newly Promulgated Industries.

There were no 90-day Compliance Reports required during the monitoring period of June 1, 2018 through May 31, 2019. However, The City of Manchester, Environmental Protection Division (EPD) does require all Class I Industries that are renewing their discharge permits to submit a sampling report including several more parameters to be tested with their permit application.

Included at the end of this section is *Appendix A*, which lists all Class I Industrial Users (CIUs / SIUs). The worksheet includes the following: permitted average flows, category, and type of pretreatment and permit expiration date. Also included is *Appendix B* which lists the Class II's and *Appendix C* which lists the Class III Industrial Users.

Part 1 - 2 Compliance Status Reporting Requirements for Newly Promulgated Industries.

All Industries that are subject to monitoring requirements are up to date with their responsibilities. EPD issued no new permit(s) for the Significant Industrial User Classification I (SIU's) during the reporting period of June 1, 2018 through May 31, 2019.

Part 1 - 3 Periodic (Semi-Annual) Monitoring Reporting Requirements.

The Class I listing at the end of Section One *Appendix D* is EPD Industrial Inspection & Sampling worksheet which tracks and verifies compliance. All the Class I CIUs / SIUs are listed on this sheet. The list contains the name and category of each industry, permit number, and the permit expiration date. The names and dates are summarized on Page 4, Part 2-3, Summary of Compliance and Enforcement Activities for Compliance Schedules Issued.

Part 1 - 4 Compliance with Categorical Standards.

There were no industries that violated their categorical limits for the reporting period of June 1, 2018 through May 31, 2019. All sampling reports are documented in the City's LINKO database.

City of Manchester, NH Environmental Protection Division (EPD)
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Part 1 - 5 Compliance with Local Limits

The City is pleased to announce that there were no compliance issues with Local Limits during the reporting period of June 1, 2018 through May 31, 2019.

As noted in the past, the City has had several compliance issues with Local Limits for *Screening BOD levels* with one of our highest industrial users. NYCOA has taken a different approach and implemented a BOD reduction program within their facility and with an improved method of operating their Capro recovery system. NYCOA reduced their waste discharges over 80% which aided in the reduction of BOD slugs.

City of Manchester, NH Annual IPP Report
June 1, 2019 - May 31, 2020

APPENDIX - A
Class I / Significant Industrial Users

IPP Monitoring

| Type of Business | Facility Name | Permit No. | Location | Avg. Flow GPD | CFR | Company Representative | Pretreatment | Permit Expires |
|------------------------------|-------------------------|------------|-------------------|---------------|-----|------------------------|---------------|----------------|
| Cleaning Services | | | | | | | | |
| 1) | Cintas Corporation | 1065 | 324 Taylor Street | 38,500 | | Robert Hippert | | 4/30/2020 |
| 2) | Cintas Corporation | 1066 | 324 Taylor Street | 13,700 | | Robert Hippert | DAF | 4/30/2020 |
| 3) | E&R Cleaners | 1068 | 80 Ross Ave | 70,600 | | James McCool | | 8/31/2020 |
| 4) | Sterling Laundry | 1004 | 39 Beech Street | 95,000 | | Glen Stevens | | 1/31/2022 |
| Metal Finisher | | | | | | | | |
| 5) | Jewell Instrument | 1024 | 850 Perimeter RD | 3,700 | 433 | Paty Konstantopoulos | pH Adjustment | 11/30/2020 |
| Plastic Production | | | | | | | | |
| 6) | NYCOA | 1015 | 333 Sundial Ave | 285,000 | 414 | Rob Polce | Settling Tank | 5/31/2022 |
| Semi-Conductor | | | | | | | | |
| 7) | XMA | 1040 | 7 Perimeter Road | 560 | 469 | Stephen Taski | pH Adjustment | 3/30/2022 |
| Textile Manufacturing | | | | | | | | |
| 8) | Velcro USA | 1019 | 95 Sundial Ave | 80,100 | | Bruce Briand | pH Adjustment | 11/30/2020 |
| 9) | General Cable | 1007 | 345 McGregor St. | 23,700 | | Sara Janik | | |
| Hospital | | | | | | | | |
| 10) | Elliot Hospital | 1041 | 1 Elliot Way | 69,400 | | Brad Smith | | 5/31/2022 |
| 11) | Catholic Memorial | 1107 | 100 McGregor St | 68,900 | | Pamela Pitman | | 5/31/2022 |
| 12) | Veterans Medical Center | 1018 | 718 Smyth St. | 45,000 | | Amanda Furtado | | 5/31/2022 |
| Un-Classified | | | | | | | | |
| 13) | Manchester Landfill | 1102 | Front Street | 100,000 | | City of Manchester | | 2/28/2022 |
| Specialty Industry | | | | | | | | |
| 14) | Lyophilization (LSNE) | 1005 | 1 Sundial Street | 114,000 | | Greg Stevenson | | 8/30/2020 |
| 15) | Freudenberg-NOK | 1006 | 50 Armon Dr. | 8,600 | 428 | Kevin Smith | Calfran/pH | 11/30/2020 |

City of Manchester, NH Annual IPP Report
June 1, 2019 - May 31, 2020

APPENDIX - B
Class II Industrial Users

IPP Monitoring

| | Facility Name | Permit No. | Location | Avg. Flow GPD | Company Representative | Description of Facility | Permit Expires |
|-----|-------------------------------|------------|------------------------------|---------------|------------------------|--------------------------------|----------------|
| 1) | Hitachi Cable America Inc. | 2000 | 900 Holt Avenue | 3,000 | Dave Murray | Plastic wrap wire cable | 11/30/2019 |
| 2) | CRYO Industries | 2001 | 11124 South Willow Street | 1,000 | Kelcie O'Conner | Cryogenic Equipment | 2/28/2024 |
| 3) | Western Foods | 2005 | 299 Pepsi Road | 4,000 | Dave Martin | Food bakery | 3/31/2024 |
| 4) | Color Lines | 2012 | 150 Dow Street Tower 4 | 2,000 | Gary Bishop | Dyes for Clothing | Closed |
| 5) | Chuckles | 2013 | 11925 South Willow Street | 2,500 | Chuck Frank | Mfg. of Soaps | 3/31/2023 |
| 6) | Blake's Manchester Creamery | 2015 | 46 Milford Street | 2,000 | Richard Wolstencroft | Mfg. of Ice Cream | 5/31/2024 |
| 7) | Budd Foods | 2016 | 431 Somerville Street | 10,000 | Fredrick Hayes Jr. | Mfg. of Frozen Pies | 11/30/2022 |
| 8) | H&O Dental | 2017 | 1050 N. Perimeter Road | 250 | Michelle Maradiaga | Mfg. of False Teeth | 5/31/2024 |
| 9) | New England Document Systems | 2020 | 780 E. Industrial Park Drive | 850 | Nick Brattan | Store Microfiche | 11/30/2022 |
| 10) | Elliot at Rivers Edge | 2041 | 185 Queen City Ave. | 7,000 | Kristen Petrin-Doucet | Patient Care/Lab-Sterilization | 8/31/2021 |
| 11) | NH Plastics (1 Bouchard) | 2042 | One Bouchard Street | 1,000 | Harold Young | Plastic Moldings | 5/31/2024 |
| 12) | NH Plastics (315 Bouchard) | 2043 | 315 Bouchard Street | 1,600 | Ralph Tremblay | Plastic Moldings | 5/31/2024 |
| 13) | Kyzen Corporation | 2044 | 540 N. Commercial St. | 475 | Mike Doucette | Solutions for Circuit Ind. | 7/31/2020 |
| 14) | Symmetry Medical Inc. Polyyac | 2046 | 253 Abby Road | 1,900 | Ernie Fuller | Mfg. Medical trays | 11/30/2019 |
| 15) | Summit Packaging Systems Inc. | 2047 | 400 Gay Street | 2,300 | Chris Gallo | Mfg. Aerosol valves | 7/31/2020 |

City of Manchester , NH Annual IPP Report
June 1, 2019 - May 31, 2020

APPENDIX - C
Class III Industrial Users

IPP Monitoring

| Facility Name | | Permit No. | Permit Expires | Facility Name | | Permit No. | Permit Expires |
|---------------|------------------------------|------------|----------------|--------------------------------------|-----------------------------|-------------|----------------|
| 1 | The Doctor's Office | 3001 | 8/31/19 | 34 | Henry's Collision Center | 3061 | 6/30/23 |
| 2 | Pepsi Cola | 3002 | 1/31/24 | 35 | Soil-Away Salem, NH | 3063 | 7/31/24 |
| 3 | Granite State Manufacturing | 3003 | 8/31/20 | 36 | A-1 Steam Cleaning | 3065 | 1/31/24 |
| 4 | USPS | 3004 | 5/31/24 | 37 | Starks Brewery | 3066 | 2/28/23 |
| 5 | Knoetner | 3005 | 5/31/24 | 38 | Servpro of Man/Derry | 3070 | 3/31/24 |
| 6 | Stanley Mitsubishi | 3007 | 9/30/19 | 39 | Extra Clean Services | 3071 | Closed |
| 7 | Enterprise Holdings | 3008 | 2/28/20 | 40 | Walgreens 227 S. Main St. | 3077 | 11/30/23 |
| 8 | M.L. Halle | 3009 | 7/31/20 | 41 | Holloway Cars of Man. | 3083 | 11/30/19 |
| 9 | Secondwind | 3011 | 7/31/20 | 42 | Team Nissan | 3089 | 7/31/24 |
| 10 | BAE Oasis | 3012 | 6/30/22 | 43 | Manchester Subaru | 3090 | 9/30/19 |
| 11 | Best Qualified Cleaning Inc. | 3013 | 3/31/19 | 44 | AutoFair Honda | 3091 | 11/30/19 |
| 12 | Signature Flight Support | 3015 | 11/30/23 | 45 | Quirk Parts Warehouse | 3092 | 5/31/21 |
| 13 | Brentag Lubricants | 3016 | 2/28/24 | 46 | AutoFair Hyundai | 3093 | 11/30/19 |
| 14 | R & L Carriers | 3017 | 2/28/24 | 47 | Merrimack Street Volvo | 3094 | 1/31/20 |
| 15 | Quirk 1250 S. Willow St. | 3018 | 11/30/23 | 48 | Merrimack Street Volvo | 3095 | 1/31/20 |
| 16 | Quirk 1100 S. Willow St. | 3019 | 11/30/19 | 49 | Bonneville & Son Inc. | 3097 | 11/30/24 |
| 17 | Quirk Works - Porter St | 3020 | 11/30/23 | 50 | State Motors Car Wash | 3102 | 3/31/20 |
| 18 | Steralon | 3021 | 9/30/19 | 51 | Kalwall Corp. - Pine Street | 3104 | 7/31/20 |
| 19 | Manchester Armory | 3022 | 4/30/21 | 52 | Keller Products | 3105 | 7/31/20 |
| 20 | Frank's Signs | 3023 | 4/30/24 | 53 | IRA Toyota | 3109 | 10/31/20 |
| 21 | AutoFair Ford | 3025 | 8/1/24 | 54 | Conway Express | 3112 | 7/31/24 |
| 22 | PMC Wire & Cable | 3029 | 6/30/19 | 55 | CVS Pharmacy (271 Mammoth) | 3113 | 7/31/24 |
| 23 | U-Haul | 3031 | 8/1/24 | 56 | Kalwall Corp. - 1111 Candia | 3120 | 3/31/23 |
| 24 | Admix | 3033 | 8/1/24 | 57 | Prestige Auto Body Inc. | 3122 | 9/30/22 |
| 25 | Crawford Vogel & Wenzel | 3037 | 6/30/20 | 58 | FedEx Ground Package System | 3123 | 9/30/22 |
| 26 | Certified Maintenance Ser | 3043 | 11/30/23 | | | | |
| 27 | Liberty Trucks | 3039 | 10/31/20 | | | | |
| 28 | PSNH 73 West Brook St. | 3047 | 2/28/20 | Special / Temporary Discharge Permit | | | |
| 29 | PSNH 80 West Pennacook | 3048 | 2/28/20 | | | | |
| 30 | PSNH 1580 Elm Street | 3042 | 2/28/20 | 1 | Liberty Utilities | T-3001-0118 | 2/19/2018 |
| 31 | PSNH 780 N.Commercial St. | 3051 | 7/31/23 | | | | |
| 32 | Texas Instruments | 3053 | 5/31/22 | | | | |
| 33 | Kimark Specialty Box Co. | 3057 | 8/1/24 | | | | |

APPENDIX - D
Class I/Significant Industrial Users
EPD Industrial Inspections & Sampling Worksheet

| EPA Classification | Permit No. | Facility Name | Permit Expires | EPD Inspection City Required | EPD Sampling City Required | July - Dec (19) Self-Mon. Rpt. Ind. Required | July - Dec (19) Flow Rpt. Ind. Required | Jan - June (20) Self-Mon. Rpt. Ind. Required | Jan - June (20) Flow Rpt. Ind. Required |
|--------------------|------------|---------------------|----------------|------------------------------|----------------------------|--|---|--|---|
| 1 SIU | 1005 | Lyophilization-LSNE | 8/31/2020 | | | 11/12/2019 | 12/2/2019 | | |
| 2 SIU | 1065 | Cintas Corporation | 4/30/2020 | | | 7/10/2019 | 12/10/2019 | | |
| 3 SIU | 1066 | Cintas Corporation | 4/30/2020 | | | 7/10/2019 | 12/10/2019 | | |
| 4 SIU | 1068 | E & R Laundry | 8/31/2020 | | | 10/3/2019 | 12/13/2019 | | |
| 5 SIU | 1041 | Elliot Hospital | 5/31/2022 | | | 10/31/2019 | 12/10/2019 | | |
| 6 CIU 428 | 1006 | Freudenberg-NOK | 11/30/2020 | | | 9/6/2019 | 12/12/2019 | | |
| 7 SIU | 1102 | Front St. Landfill | 2/28/2022 | Not Required | 9/20/2019 | Not Required | Not Required | | Not Required |
| 8 CIU 433 | 1024 | Jewell | 11/30/2020 | | | 8/29/2019 | 12/12/2019 | | |
| 9 CIU 414 | 1015 | NYCOA | 5/31/2022 | | | 11/14/2019 | 12/5/2019 | | |
| 10 SIU | 1019 | Velero | 11/30/2022 | | | 6/25/2019 | 12/4/2019 | | |
| 11 CIU 469 | 1040 | XMA Corporation | 2/28/2022 | | | 10/15/2019 | 11/15/2019 | | |
| 12 SIU | 1018 | VA Medical Center | 1/31/2022 | | | 9/12/2019 | 10/4/2019 | | |
| 13 SIU | 1107 | Catholic Medical | 5/31/2022 | | | 9/24/2019 | 12/6/2019 | | |
| 14 SIU | 1007 | General Cable | 1/31/2020 | | | * 11/25/2019 | * 12/18/2019 | | |
| 15 SIU | 1004 | Sterling Laundry | 1/31/2022 | | | 10/23/2019 | 12/4/2019 | | |

Town of Bedford

Conducted all Dental Inspections 2018-2019

Town of Londonderry

See 2018-2019 IPP Annual Report

Conducted all Dental Inspections 2018-2019

Town of Goffstown

No permit activity

Conducted all Dental Inspections 2018-2019

Notes:

1. Front Street is the City of Manchester's Landfill. The IPP staff maintains the permit and sampling activities.
2. N/D = No Discharge
3. General Cable : * New Permit Sampling activities included in package

City of Manchester, NH Environmental Protection Division (EPD)
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Information Required By EPA

Section Two

Summary of Compliance and Enforcement Activities during the preceding year, including the number of:

Part 2 - 1 Significant industrial users inspected by POTW (include inspection dates for each industrial user)

The City of Manchester, (EPD) inspections are summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. All Class I inspections were performed from June 1, 2018 through May 31, 2019. EPD also completed the Industrial Class II and Class III permit renewals for this monitoring period. EPD's enforcement tracking sheet is summarized on the Enforcement Response Worksheet *Appendix E* at the end of Section Three.

Part 2 - 2 Summary of significant industrial users sampled by the POTW.

The City of Manchester, (EPD) Industrial sampling is summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. All Class I Industries' sampling activities were performed from June 1, 2018 through May 31, 2019.

Below are the City's sampling activities that will continue throughout the upcoming reporting year:

1. The Town of Londonderry is continuing to monitor the collection system quarterly for excess organic loading and sulfides generated due to the degradation of the high strength waste in the Londonderry sewer system. EPD will continue to monitor for silver, copper, mercury, lead, zinc, selenium, aluminum and total phosphorous. EPD is continuing to collect the data to see if they are contributing to the treatment plants loadings.
2. EPD has implemented extensive treatment plant effluent sampling as required by the present NPDES permit. The facility is sampling monthly for copper, lead and total phosphorous from the final effluent. Starting in May of 2019, EPD added Total Nitrogen and per-and poly fluoroalkyl substances (PFAS) (16 compounds) for the influent & effluent, sludge and ash.
3. In the past, EPD has had ongoing issues with copper, silver, zinc, and mercury discharges from contributing towns (Bedford, Londonderry, and Goffstown). The sampling activities that were conducted this reporting period indicated that none of the three towns exceeded their allowable pounds of discharge for the parameters sampled.

EPD will continue to monitor the Towns for the metals listed above and continue to monitor for aluminum and total phosphorous to determine whether or not they are contributing to the treatment plants loadings.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2018 to May 31, 2019
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Part 2 - 3 Summaries of Compliance and Enforcement Activities for Compliance Schedules Issued.

There were no enforcement activities or compliance schedules for the sixteen (16) CAT/SIU industries that are required to be permitted, sampled and inspected.

On December 31, 2018 The City performed a close out inspection of Ion Beam Milling (Permit No.1105) because they relocated their operations to the Town of Londonderry NH. EPD notified the Town of Londonderry that a CAT industry had moved to their jurisdiction.

Listed below are the compliance schedules the City of Manchester, EPD issued for the Class II Industries that reissued a discharge permit from the reporting period of June 1, 2018 through May 31, 2019.

1. CRYO Industries *Effective Date 1-1-19*
2. Western Foods (formerly Freed's) *Effective Date 2-1-19*
3. Blake's Manchester Creamery *Effective Date 4-1-19*
4. H&O Dental *Effective Date 4-1-19*
5. NH Plastics (1 Bouchard) *Effective Date 4-1-19*
6. NH Plastics (315 Bouchard) *Effective Date 4-1-19*

The City closed out Color Lines (Permit No. 2012) due to their business being closed during the reporting period.

Part 2 - 4 Summaries of Compliance and Enforcement Activities for Written Notices of Violation Issued.

The City of Manchester, EPD, Industrial Enforcement Activities are summarized on the Enforcement Worksheet *Appendix E* at the end of Section Three. EPD issued one (1) written Notice of Violation.

The one (1) violation was for an industry not submitting their periodical compliance reports (PCR) for the sampling and reporting period.

Part 2 - 5 Summary of Compliance and Enforcement Activities Involving Administrative Orders Issued.

The City of Manchester, EPD did not issue any Administrative Orders during this reporting period.

Part 2 - 6 Summary of Compliance and Enforcement Activities Involving Civil or Criminal Suits Filed.

The City of Manchester, EPD did not file any Civil or Criminal Suits during this reporting period.

Part 2-7 Summary of Compliance and Enforcement Activities Involving Penalties Obtained.

The City of Manchester, EPD did not issue or collect any penalties to any permitted industries during this reporting period.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2018 to May 31, 2019
IPP Annual Report

Information Required By EPA

Section Three

List of Significantly Violating Industries Requiring Publication.

In review of this year's inspections, self-monitoring reports and submission of periodic compliance reporting it was determined that all reporting and monitoring criteria have been met by all Class I permitted industries.

The City of Manchester, EPD had issued one (1) violation was for the industry who did not conduct their reporting / sampling requirements during the sampling period.

1). E&R Cleaners (Permit No. 1068) was sent a NOV on 12/21/2018 and on 2/11/2019, EPD received the report with the revised authorized signature sheet.

The one (1) industry will be published as a Significantly Non-Compliant (SNC) industry in the local paper. A copy of the news article will be provided and a copy of the original article will be sent to your office.

LEGAL NOTICE

In accordance with the Federal Regulations, the City of Manchester, Department of Public Works, Environmental Protection Division, is required to make this public notice. Listed below are the wastewater discharge violations of the requirements of 40CFR Part 403 (General Industrial Pretreatment Regulations) that occurred during the reporting year of June 1, 2017 through May 31, 2018.

Industry Name: E&R Cleaners

Address: 80 Ross Ave., Manchester, NH 03103

Violation: Failure to provide and perform self-monitoring testing for the semi-annual period ending, December 15, 2018. On December 21, 2018 a Notice of Violation was issued.

Status: E & R Cleaners submitted their Periodic Compliance Report for the Semi-Annual period ending February 2019. The new management didn't know to submit the report to the City.

Penalties: Penalties were not assessed or deemed necessary for the incident.

APPENDIX - E
Enforcement Response Log

| Facility Name | Permit No. | Description of Notice of Violation | Type of Action Taken from Control Authority | Date Issued | Date Due | Date Received | Final Resolutions of the NOV Issued |
|----------------|------------|---|---|-------------|-----------|---------------|---|
| 1 E&R Cleaners | 1068 | Non reporting and sampling requirements were not meet | City issued a NOV for the Nor Reporting Requirement 40 CFR-403.8 and 403.12 | 12/21/2018 | 1/21/2019 | 2/11/2019 | <p>The City of Manchester issued E&R Cleaners a Notice of Violation (NOV). This violation was issued because E&R did not meet the reporting requirements. All SNCs are documented in the Annual (2018-2019) EPA Pretreatment report.</p> <p>Considering this is E&R Cleaners second violation during this 2017-2019 reporting periods, the City in accordance with Ordinance 52.999 which includes civil penalties of up to \$10,000 will take in consideration a more progressive action.</p> <p>The NOV requires a written response from E&R Cleaners within 30 days to the City of Manchester-Environmental Protection Division describing why the sampling was not conducted as required and what the plan is to prevent this from occurring again.</p> |

No Other Enforcement Activities performed during the reporting period.

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Information Required By EPA

Section Four

A Narrative Description of Program Effectiveness Including Present and Proposed Changes to the Program

Part 4 - 1 Effectiveness and Changes in Program.

The City of Manchester (EPD) operates a 34-MGD secondary activated sludge plant. The major components of the operation are grit removal, primary clarification, aeration, secondary settling and clarification, chlorination and dechlorination. Sludge is burned onsite through a fluidized-bed incinerator.

The City of Manchester has had an approved Industrial Pretreatment Program since 1980 that oversees three classifications of industrial users. The Class I are the CAT/SIU users. The Class II is industries that have certain permitted limitations. The Class III are mostly industries that had either a silvery recovery units or oil water separators. The City considers the Class II and III non SIU but have a potential to upset the treatment facility. All permitted industries are reviewed and permits are renewed every 5 years.

EPD has initiated the recently issued §441.40 pretreatment standards for new sources (PSNS) for Dental Amalgam Separator Rule. Any new source subject to this part must comply with the requirements of §441.30(a) and (b) and the reporting and recordkeeping requirements of §441.50. On August 2019, EPD will start our annual inspection of all Dental Offices within the City of Manchester. We did establish a new inspection sheet tracking compliance and submit the database to the State of NH IPP Coordinator and EPA's Region One-Pretreatment Coordinator for their review.

EPD has written a draft Fats Oil and Grease (FOG) program that will be implemented in our Phase III CMOM program. The City will contact the State of NH IPP Coordinator and EPA's Region One-Pretreatment Coordinator for their comments prior to implementation.

Part 4 - 2 Narrative Description of Program Staffing.

The City of Manchester, (EPD) Monitoring Department is divided into four (4) programs, CSO, CMOM, Stormwater and the Industrial Pretreatment Program. The Environmental Permits Program Coordinator Jeremy Bouvier, P.E. oversees the programs.

The Pretreatment program is administered by Christopher Crowley. On May, 2019 the engineering technician position become vacant and Chris has taken additional assignments assisting with Stormwater and CMOM projects, as well as sampling and inspections for those programs.

Part 4 - 3 Narrative Description of Funding and Resources

The City of Manchester's (EPD) operating budget is supported by sewer user revenues. Revenues are collected from sewer users through a combination of sewer use charges. All sewer users in the City of Manchester pay sewer user fees based on water consumption. The three towns serviced by the EPD are assessed fees based on their measured sewer flows and loadings into the Manchester Sewer System.

City of Manchester, NH Environmental Protection Division (EPD)
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Part 4 - 4 Narrative Description of the Sewer Use Ordinance

The EPA and the Mayor and Board of Aldermen adopted the present Sewer Use Ordinance in 1997. The Ordinance is effective and adequate in addressing the requirements of Part 403 of the Federal Pretreatment Program requirements.

The few minor changes since adoption have been submitted with the updated IPP sent to EPA on May 11, 2007. On August 22, 2007 EPA responded to our Streamlining Rule modifications to the latest version of the Sewer Ordinance. This was adopted by Board of Mayor and Alderman on November 18, 2014.

City of Manchester, NH Environmental Protection Division (EPD)
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Information Required By EPA

Section Five

Summary of Analytical Data.

This section includes the following data:

1. Summary of POTW Annual Influent Monitoring Results for the period of June 2018 through May 2019 compared to threshold inhibition concentrations. *See Appendix F*
2. Summary of POTW Annual Effluent Monitoring Results for the period of June 2018 through May 2019 compared to threshold inhibition concentrations. *See Appendix G*
3. Summary of Sludge Priority Pollutant Analysis Data for the period of June 2018 through May 2019. *See Appendix H*
4. Executive Summary of the Analytical Data is attached in the form of tables. The toxicity data are from summary sheets submitted by the contracted laboratory.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2018 to May 31, 2019
IPP Annual Report

SDG: 15385 July 31, 2018 -August 7, 2018

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samplers were received under chain of custody shipped on ice. The initial samples, which were transported by Aquatec Environmental, Inc. were picked up and delivered on the same day (July 30, 2018). The renewal samples were picked up by Freedom Xpress, Inc. on August 1 and August 3, 2018 and delivered on August 1 and 3, 2018, were slightly above the target range of 0°C to 6°C (103°C and 8.5°C, respectively). Otherwise, the sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

| Species | Exposure | LC-50 | A-NOEC | Permit Limit (LC-50) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|--------|-------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 48-Hours | >100 % | NC | 100 % | Yes | Yes |
| <i>Pimephales promelas</i> | 48-Hours | >100 % | NC | 100 % | Yes | Yes |

Chronic Toxicity Evaluation

| Species | Exposure | C-NOEC | IC-25 | Permit Limit (C-NOEC) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|-------|--------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 6 Days | 8.5 %* | 48.2 | 8.5 % | Yes | Yes |
| <i>Pimephales promelas</i> | 7 Days | 100 % | >100% | 8.5 % | Yes | Yes |

COMMENTS:

*Significant reductions in reproduction were detected in the 12.5%, 50%, and 100% effluent, however, reproduction rates in these concentrations were very high (>30 neonates per female).

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2018 to May 31, 2019
IPP Annual Report

SDG: 15432 October 16 - October 24, 2018

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. Aquatec Environmental, Inc. provided an ISCO 3700 composite sampler for the effluent sampling, programed to collect 310ml every 30 minutes for 24 hours. Merrimack River samples, used as dilution water, were river grab samples. Samplers were received under chain of custody shipped on ice. The initial samples, which were transported by Aquatec Environmental, personnel under chain-of-custody shipped on ice. Cooler temperatures (as measured in the temperature blank) were within the range of 1.9 °C to 3.7 °C. Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

| Species | Exposure | LC-50 | A-NOEC | Permit Limit (LC-50) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|--------|-------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 48-Hours | >100 % | 100 % | 100 % | Yes | Yes |
| <i>Pimephales promelas</i> | 48-Hours | >100 % | 100 % | 100 % | Yes | Yes |

Chronic Toxicity Evaluation

| Species | Exposure | C-NOEC | IC-25 | Permit Limit (C-NOEC) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|-------|--------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 8 Days | 100 % | >100% | 8.5 % | Yes | Yes * |
| <i>Pimephales promelas</i> | 7 Days | 100 % | N/C | 8.5 % | Yes | Yes |

COMMENTS:

- The Controls met test acceptance criteria. The Percent Minimum Significant Difference (PMSD) was above the upper boundary of *Ceriodaphnia dubia* reproduction indicating data more variable than normal. The chronic test was viewed as provisionally acceptable because reproduction rates were higher in all effluent concentrations than in the Controls.

City of Manchester, NH Environmental Protection Division (EPD)

June 1, 2018 to May 31, 2019

IPP Annual Report

SDG: 15520 February 12 -February 19, 2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According to the Chain-of-Custody, effluent samples were 24-hours composite while Merrimack River samples, used as dilution water, were river grab samples. Samplers were received and transported by Aquatec Environmental, Inc. under chain-of-custody, packed in ice and delivered on the same day (February 11, 13 and 15, 2019). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below

Acute Toxicity Evaluation

| Species | Exposure | LC-50 | A-NOEC | Permit Limit (LC-50) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|--------|-------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 48-Hours | >100 % | 100% | 100 % | Yes | Yes |
| <i>Pimephales promelas</i> | 48-Hours | >100 % | 100% | 100 % | Yes | Yes |

Chronic Toxicity Evaluation

| Species | Exposure | C-NOEC | IC-25 | Permit Limit (C-NOEC) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|-------|--------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 6 Days | 100 % | >100% | 8.5 % | Yes | Yes |
| <i>Pimephales promelas</i> | 7 Days | 100 % | >100% | 8.5 % | Yes | Yes |

COMMENTS:

City of Manchester, NH Environmental Protection Division (EPD)

June 1, 2018 to May 31, 2019

IPP Annual Report

SDG: 15569 April 16 - April 23, 2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According to the Chain-of-Custody, effluent samples were 24-hours composite while Merrimack River samples, used as dilution water, were river grab samples.

Samplers were received and transported by Aquatec Environmental, Inc. under chain-of-custody, packed in ice and delivered on the same day (April 15, 17 and 19, 2019). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below

Acute Toxicity Evaluation

| Species | Exposure | LC-50 | A-NOEC | Permit Limit (LC-50) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|--------|-------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 48-Hours | >100 % | 100% | 100 % | Yes | Yes |
| <i>Pimephales promelas</i> | 48-Hours | >100 % | 100% | 100 % | Yes | Yes |

Chronic Toxicity Evaluation

| Species | Exposure | C-NOEC | IC-25 | Permit Limit (C-NOEC) | Effluent Meets Permit Limit | Assay Meets Protocol Limits |
|----------------------------|----------|--------|-------|--------------------------|--------------------------------|--------------------------------|
| <i>Ceriodaphnia dubia</i> | 6 Days | 100 % | >100% | 8.5 % | Yes | Yes |
| <i>Pimephales promelas</i> | 7 Days | 100 % | >100% | 8.5 % | Yes | Yes |

COMMENTS:

| INFLUENT INFORMATION | | State H2O Quality Criteria | Criteria Corrected for 7Q10 | State H2O Quality Criteria | Criteria Corrected for 7Q10 | Compliance Status |
|-------------------------------------|--------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|-------------------|
| Date of Analysis | 5/28/2019 | Acute | Acute | Chronic | Chronic | |
| Lab ID. | 195779 | | | | | |
| Listed Parameter | Concentration mg/l | Concentration mg/l (*) | Concentration mg/l | Concentration mg/l (*) | Concentration mg/l | Yes or No |
| Antimony | | | | | | |
| Aluminum | 0.09 | | | | | |
| Arsenic | 0.0012 | 0.36 | 4.2552 | 0.19 | 2.24580 | Yes |
| Barium | | | | | | |
| Beryllium | | | | | | |
| Cadmium | <0.001 | 0.00082 | 0.00969 | 0.00038 | 0.0044916 | Yes |
| Calcium | | | | | | |
| Chromium | 0.0014 | 0.176 | 2.08032 | 0.057 | 0.67374 | Yes |
| Copper | 0.02 | 0.0046 | 0.054372 | 0.0035 | 0.04137 | No |
| Hardness | | | | | | |
| Fluoride | | | | | | |
| Iron | | | | | | |
| Lead | 0.0016 | 0.014 | 0.16548 | 0.00055 | 0.0065010 | Yes |
| Magnesium | | | | | | |
| Mercury | 0.0000127 | 0.00204 | 0.02411 | 0.000012 | 0.000142 | Yes |
| Molybdenum | | | | | | |
| Nickel | 0.0019 | 0.438 | 5.17716 | 0.0487 | 0.57563 | Yes |
| Phenolic (T) | | | | | | |
| Selenium | 0.04 | | | | | Yes |
| Silver | | | | | | |
| Thallium | <0.001 | 0.00032 | 0.0037824 | | | Yes |
| Vanadium | | | | | | |
| Zinc | 0.059 | 0.0354 | 0.418428 | 0.0322 | 0.38060 | No |
| Cyanide | 0.04 | 0.022 | 0.26004 | 0.0052 | 0.06146 | Yes |
| Oil & Grease | | | | | | |
| Oil & Grease W/SGT | 20.00 | | | | | |
| T. Phosphorus | | | | | | |
| | 2.90 | | | | | |
| ORGANICS | | | | | | |
| See Note below | | | | | | |
| added 625 1,2 diphenylhydrazine | | | | | | |
| 3 and 4 methylphenol (p-cresol) 9.8 | | | | | | |

The sample was tested for 624-625

*The Merrimack River 7Q10 is at 412 MGD

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

| EFFULGENT INFORMATION | | State H2O Quality Criteria | Criteria Corrected for 7Q10 | State H2O Quality Criteria | Criteria Corrected for 7Q10 | Compliance Status |
|-----------------------|-----------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|-------------------|
| Date of Analysis | 5/28/2019 | Acute | Acute | Chronic | Chronic | |
| Lab I.D. | 195779 | | | | | |
| Listed Parameter | Concentration mg/l | Concentration mg/l (*) | Concentration mg/l | Concentration mg/l (*) | Concentration mg/l | Yes or No |
| Antimony | | | | | | |
| Aluminum | 0.015 | | | | | |
| Arsenic | 0.0011 | 0.36 | 4.2552 | 0.19 | 2.24580 | Yes |
| Barium | | | | | | |
| Beryllium | | | | | | |
| Cadmium | < 0.001 | 0.00082 | 0.00969 | 0.00038 | 0.0044916 | Yes |
| Calcium | | | | | | |
| Chromium | < 0.001 | 0.176 | 2.08032 | 0.057 | 0.67374 | Yes |
| Copper | 0.012 | 0.0046 | 0.054372 | 0.0035 | 0.04137 | Yes |
| Hardness | | | | | | |
| Fluoride | | | | | | |
| Iron | | | | | | |
| Lead | < 0.0005 | 0.014 | 0.16548 | 0.00055 | 0.0065010 | Yes |
| Magnesium | | | | | | |
| Mercury | 0.0023 | 0.00204 | 0.02411 | 0.000012 | 0.000142 | Yes |
| Molybdenum | | | | | | |
| Nickel | 0.0016 | 0.438 | 5.17716 | 0.0487 | 0.57563 | Yes |
| Phenolic (T) | < 0.06 | | | | | Yes |
| Selenium | | | | | | |
| Silver | < 0.001 | 0.00032 | 0.0037824 | | | Yes |
| Thallium | < 0.001 | | | | | Yes |
| Vanadium | | | | | | |
| Zinc | 0.032 | 0.0354 | 0.418428 | 0.0322 | 0.38060 | Yes |
| Cyanide | 0.013 | 0.022 | 0.26004 | 0.0052 | 0.06146 | Yes |
| Oil & Grease | < 6 | | | | | |
| Oil & Grease W/SGT | | | | | | |
| T. Phosphorus | 2.3 | | | | | |
| ORGANICS | See Note below | | | | | |
| added 625 | 1,2 diphenylhydrazine | | | | | |

The sample was tested for 624-625

*The Merrimack River 7Q10 is at 412 MGD

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

| Date Received | 6/14/2018 | 7/27/2018 | 8/23/2018 | 9/25/2018 | TCLP Limits | NPDES | 503 Rags | State NH (1) | State of |
|---------------------------|-----------|------------|-----------|-----------|---------------|---------------|---------------|---------------|---------------|
| Lab ID Number | 30766 | 184790 | 185782 | 187019 | Criteria | Permit 5/1/15 | Sub B (1) | Criteria | Compliance |
| Listed Parameter | ug/g | ug/g | ug/g | ug/g | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. |
| Aluminum | | | 68000.00 | | | | | | |
| Antimony | | 2.20 | 2.30 | 2.50 | | | | | |
| Arsenic | 5.13 | 0.50 | 9.20 | 7.90 | 100 | 8,573 | 41 | 32 | Yes |
| Barium | 310.00 | 0.50 | 270.00 | 2.00 | 2,000 | | | | |
| Beryllium | | 0.50 | 0.87 | 0.50 | | | | | |
| Boron | | | 5.60 | | | | | | |
| Cadmium | 1.97 | 1.90 | 2.90 | 1.90 | 20 | 43,416 | 39 | 14 | Yes |
| Chromium | 17.50 | 23.00 | 29.00 | 25.00 | 100 | 1,423,398 | 1,200 | 1,000 | Yes |
| Copper | | 300.00 | 350.00 | 300.00 | | | 1,500 | 1,500 | yes |
| Iron | | 12000.00 | 11000.00 | 10000.00 | | | | | |
| Lead | 38.90 | 63.00 | 59.00 | 51.00 | 100 | 262,781 | 300 | 300 | Yes |
| Mercury | 0.45 | 0.68 | 0.68 | 0.74 | 4 | | 17 | 10 | Yes |
| Molybdenum | | 6.50 | 7.10 | 9.30 | | | 75 | 35 | Yes |
| Nickel | | 14.00 | 17.00 | 15.00 | | 213,643 | 420 | 200 | |
| Selenium | 4.98 | 4.10 | 3.10 | 2.70 | 20 | | 100 | 28 | Yes |
| Silver | 3.92 | 2.20 | 2.20 | 2.50 | 100 | | | | Yes |
| Thallium | | 0.50 | 0.50 | 0.50 | | | | | |
| Vanadium | | | 12.00 | | | | | | |
| Zinc | | 660.00 | 710.00 | 650.00 | | | 2,800 | 2,500 | Yes |
| % Solids | 26.70% | 27.80% | 29.30% | 17.80% | | | | | |
| Free Lq (Paint Filter) | Absent | Absent | Absent | Absent | | | | | |
| % Carbon | | | | | | | | | |
| Total Organic Carbon | | | | | | | | | |
| % CaCO3 -eq. | | | | | | | | | |
| pH (Soil) | | | | | | | | | |
| Date of Analysis | 7/28/2018 | 8/7/2018 | 8/30/2018 | 9/27/2018 | | | | | |
| Lab ID Number | 30766-001 | 184790-001 | 185782-02 | 187019-01 | | | | | |
| Concentration ug/g dr | mg/Kg | mg/Kg | mg/Kg | mg/Kg | | | | | |
| acetone | | 37.00 | 200.00 | 180.00 | | | | | |
| 2-Butanone (MEK) | 1900.00 | 940.00 | 41.00 | 54.00 | | | | | |
| 1,2-dichloroethane | | | | | | | | | |
| 1,1-dichloroethene | | | | | | | | | |
| 1,4-dichlorobenzene | | | | | | | | | |
| benzene | | | | | | | | | |
| carbon tetrachloride | | | | | | | | | |
| toluene | | | 42.00 | 9.30 | | | | | |
| chloroform | | | | | | | | | |
| methyl ethyl ketone | | | | | | | | | |
| tetrachloroethene | | | | | | | | | |
| trichloroethene | | | | | | | | | |
| vinyl chloride | | | | | | | | | |
| 2-methylphenol (m-cresol) | | | | | | | | | |
| 3-4-methylphenol(p-o-c) | 64.00 | 140.00 | | 84.00 | | | | | |
| 1,4 dichlorobenzene | | | | | | | | | |
| o-cresol | | | | | | | | | |
| m-cresol | | | | | | | | | |
| p-cresol | | | | | | | | | |
| 2,4-dinitrotoluene | | | | | | | | | |
| hexachlorobenzene | | | | | | | | | |
| hexochloro-1,3-butadiene | | | | | | | | | |
| phenathrene | | 1.20 | | | | | | | |
| methylene chloride | | | | | | | | | |
| Fluoranthane | | 4.00 | | | | | | | |
| Pyrene | | 2.10 | | | | | | | |
| Chysene | | 1.80 | | | | | | | |
| benzo(b)fluranthene | | 1.90 | | | | | | | |
| phenol | | | | | | | | | |

| Date Received | 10/29/2018 | 12/4/2018 | 12/28/2018 | 1/18/2018 | TCLP Limits | NPDES | 503 Rags | State NH (1) | State of |
|---------------------------|------------|-----------|------------|-----------|---------------|---------------|---------------|---------------|---------------|
| Lab ID Number | 188422 | 189714 | 190702 | 191385 | Criteria | Permit 5/1/15 | Sub B (1) | Criteria | Compliance |
| Listed Parameter | ug/g | ug/g | ug/g | ug/g | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. |
| Aluminum | 3100.00 | | 4300.00 | 3300.00 | | | | | |
| Antimony | 1.50 | 1.90 | 1.90 | 1.80 | | | | | |
| Arsenic | 4.90 | 6.40 | 4.50 | 4.10 | 100 | 8,573 | 41 | 32 | Yes |
| Barium | 290.00 | | 260.00 | 190.00 | 2,000 | | | | |
| Beryllium | 0.50 | 0.57 | 0.50 | 0.50 | | | | | |
| Boron | 5.00 | | 4.30 | 5.30 | | | | | |
| Cadmium | 1.80 | 3.00 | 2.10 | 4.30 | 20.0 | 43,416 | 39 | 14 | Yes |
| Chromium | 14.00 | 19.00 | 18.00 | 14.00 | 100 | 1,423,398 | 1,200 | 1,000 | Yes |
| Copper | 260.00 | 280.00 | 250.00 | 200.00 | | | 1,500 | 1,500 | yes |
| Iron | 10000.00 | 11000.00 | 11000.00 | 9000.00 | | | | | |
| Lead | 23.00 | 42.00 | 36.00 | 23.00 | 100 | 262,781 | 300 | 300 | Yes |
| Mercury | 0.29 | 0.30 | 0.32 | 0.32 | 4.0 | | 17 | 10 | Yes |
| Molybdenum | 7.20 | 4.30 | 3.80 | 3.40 | | | 75 | 35 | Yes |
| Nickel | 8.90 | 12.00 | 10.00 | 8.90 | | 213,643 | 420 | 200 | |
| Selenium | 3.70 | 2.00 | 3.10 | 3.30 | 20.0 | | 100 | 28 | Yes |
| Silver | 2.60 | 2.00 | 2.40 | 2.40 | 100 | | | | Yes |
| Thallium | 0.50 | 0.50 | 0.50 | 0.50 | | | | | |
| Vanadium | 5.50 | | 8.80 | 13.00 | | | | | |
| Zinc | 480.00 | 480.00 | 530.00 | 420.00 | | | 2,800 | 2,500 | Yes |
| % Solids | 24.20% | 24.30% | 24.90% | 24.70% | | | | | |
| Free Lq (Paint Filter) | Absent | Absent | Absent | Absent | | | | | |
| % Carbon | | | | | | | | | |
| Total Organic Carbon | | | | | | | | | |
| % CaCO3 -eq. | | | | | | | | | |
| pH (Soil) | | | | | | | | | |
| Date of Analysis | 10/30/2018 | 12/7/2018 | 12/28/2018 | 1/16/2019 | | | | | |
| Lab ID Number | 188422-01 | 189714-01 | 190702-02 | 191385-01 | | | | | |
| Concentration ug/g dr | mg/Kg | mg/Kg | mg/Kg | mg/Kg | | | | | |
| acetone | 410.00 | 160.00 | 160.00 | 240.00 | | | | | |
| 2-Butanone (MEK) | 120.00 | 19.00 | 36.00 | 53.00 | | | | | |
| 1,2-dichloroethane | | | | | | | | | |
| 1,1-dichloroethene | | | | | | | | | |
| 1,4-dichlorobenzene | | | | | | | | | |
| benzene | | | | | | | | | |
| carbon tetrachloride | | | | | | | | | |
| toluene | | 5.50 | | | | | | | |
| chloroform | | | | | | | | | |
| methyl ethyl ketone | | | | | | | | | |
| tetrachloroethene | | | | | | | | | |
| trichloroethene | | | | | | | | | |
| vinyl chloride | | | | | | | | | |
| 2-methylphenol (m-cresol) | | | | | | | | | |
| 3-4-methylphenol(p-o-c] | 160.00 | 190.00 | | 1600.00 | | | | | |
| 1,4 dichlorobenzene | | | | | | | | | |
| o-cresol | | | | | | | | | |
| m-cresol | | | | | | | | | |
| p-cresol | | | | | | | | | |
| 2,4-dinitrotoluene | | | | | | | | | |
| hexachlorobenzene | | | | | | | | | |
| hexochloro-1,3-butadiene | | | | | | | | | |
| hexachloroethane | | | | | | | | | |
| nitrobenzene | | | | | | | | | |
| pentachlorophenol | | | | | | | | | |
| Pryidine | | | | | | | | | |
| 2,4,5-trichlorophenol | | | | | | | | | |
| 2,4,6-trichlorophenol | | | | | | | | | |
| phenol | | | | | | | | | |

| Date Received | 2/9/2019 | 3/15/2019 | 4/24/2019 | 5/17/2019 | TCLP Limits | NPDES | 503 Rags | State NH (1) | State of |
|---------------------------|-----------|-----------|-----------|-----------|---------------|---------------|---------------|---------------|---------------|
| Lab ID Number | 19229 | 193068 | 194576 | 195588 | Criteria | Permit 5/1/15 | Sub B (1) | Criteria | Compliance |
| Listed Parameter | ug/g | ug/g | ug/g | ug/g | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. | mg/kg dry wt. |
| Aluminum | | 2600.00 | 3900.00 | 2700.00 | | | | | |
| Antimony | 2.30 | 1.80 | 2.00 | 1.80 | | | | | |
| Arsenic | 4.00 | 2.70 | 5.00 | 4.10 | 100 | 8,573 | 41 | 32 | Yes |
| Barium | | 150.00 | 170.00 | 200.00 | 2,000 | | | | |
| Beryllium | 0.50 | 0.50 | 0.50 | 0.50 | | | | | |
| Boron | | 5.00 | 5.00 | 5.00 | | | | | |
| Cadmium | 5.50 | 3.80 | 1.90 | 2.00 | 20.0 | 43,416 | 39 | 14 | Yes |
| Chromium | 17.00 | 15.00 | 20.00 | 14.00 | 100 | 1,423,398 | 1,200 | 1,000 | Yes |
| Copper | 190.00 | 160.00 | 250.00 | 210.00 | | | 1,500 | 1,500 | yes |
| Iron | 8100.00 | 7000.00 | 8400.00 | 7500.00 | | | | | |
| Lead | 28.00 | 20.00 | 38.00 | 25.00 | 100 | 262,781 | 300 | 300 | Yes |
| Mercury | 0.25 | 0.37 | 0.51 | 1.10 | 4.0 | | 17 | 10 | Yes |
| Molybdenum | 3.20 | 3.10 | 1800.00 | 4.40 | | | 75 | 35 | Yes |
| Nickel | 11.00 | 8.40 | 11.00 | 12.00 | | 213,643 | 420 | 200 | |
| Selenium | 2.70 | 3.20 | 2.10 | 2.80 | 20.0 | | 100 | 28 | Yes |
| Silver | 7.80 | 3.40 | 1.90 | 2.00 | 100 | | | | Yes |
| Thallium | 0.50 | 0.50 | 0.50 | 0.50 | | | | | |
| Vanadium | | 7.40 | 13.00 | 6.30 | | | | | |
| Zinc | 410.00 | 3400.00 | 470.00 | 510.00 | | | 2,800 | 2,500 | Yes |
| % Solids | 25.70% | 22.70% | 29.10% | 25.10% | | | | | |
| Free Lq (Paint Filter) | Absent | Absent | Absent | Absent | | | | | |
| % Carbon | | | | | | | | | |
| Total Organic Carbon | | | | | | | | | |
| % CaCO3 -eq. | | | | | | | | | |
| pH (Soil) | | | | | | | | | |
| Date of Analysis | 2/19/2019 | 3/27/2019 | 4/29/2019 | 5/21/2019 | | | | | |
| Lab ID Number | 192229-02 | 193066-02 | 194576-02 | 195588-02 | | | | | |
| Concentration ug/g dr | mg/Kg | mg/Kg | mg/Kg | mg/Kg | | | | | |
| acetone | 200.00 | 1200.00 | 140.00 | 140.00 | | | | | |
| 2-Butanone (MEK) | 60.00 | 460.00 | 67.00 | 48.00 | | | | | |
| 1,2-dichloroethane | | | | | | | | | |
| 1,1-dichloroethene | | | | | | | | | |
| 1,4-dichlorobenzene | | | | | | | | | |
| benzene | | | | | | | | | |
| carbon tetrachloride | | | | | | | | | |
| toluene | 2.80 | | 2.70 | 1.90 | | | | | |
| chloroform | | | | | | | | | |
| methyl ethyl ketone | | | | | | | | | |
| tetrachloroethene | | | | | | | | | |
| trichloroethene | | | | | | | | | |
| vinyl chloride | | | | | | | | | |
| 2-methylphenol (m-cresol) | | | | | | | | | |
| 3-4-methylphenol(p-o-c) | 190.00 | 140.00 | 230.00 | 320.00 | | | | | |
| 1,4 dichlorobenzene | | | | | | | | | |
| o-cresol | | | | | | | | | |
| m-cresol | | | | | | | | | |
| p-cresol | | | | | | | | | |
| 2,4-dinitrotoluene | | | | | | | | | |
| hexachlorobenzene | | | | | | | | | |
| hexochloro-1,3-butadiene | | | | | | | | | |
| hexachloroethane | | | | | | | | | |
| nitrobenzene | | | | | | | | | |
| pentachlorophenol | | | | | | | | | |
| Pryidine | | | | | | | | | |
| 2,4,5-trichlorophenol | | | | | | | | | |
| 2,4,6-trichlorophenol | | | | | | | | | |
| phenol | | | | | | | | | |

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Section Six

Description of Interference and Pass-Through

There was no industrial interference with the treatment plant process that caused any interference or pass-through during the June 1, 2018 through May 31, 2019 reporting period. The aeration system is fully operational. The system is much more forgiving in handling high loadings and low dissolved oxygen conditions are quickly corrected. EPD will continue monitor the conditions and adjust the performance of the plant's performance.

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Section Seven

Investigation of Interference and Pass-Through

The City of Manchester, EPD has taken a proactive approach in sampling the POTW influent and effluent for nutrients, metals and total phosphorus. EPD has taken the initiative to sample permit renewals that could potentially contribute to the metals and total phosphorus loadings at the treatment plant. EPD has determined that the Manchester Water Works and Granite Ridge Energy of New Hampshire are two industries that might be contributing to the influent aluminum during dry weather conditions.

EPD will continue to test for aluminum, mercury and total phosphorus from the contributing towns (Bedford, Goffstown and Londonderry) during the quarterly sampling activities.

The Town of Bedford quarterly sampling results from June 1, 2018 to May 31, 2019 indicated that they had not exceeded their allowable pounds per day for any of the parameters that were tested. The additional test results for aluminum, mercury and phosphorus are in the table below.

| The additional sampling of: | Aluminum | Mercury | Total Phosphorus |
|-----------------------------|------------|-------------|------------------|
| 7/12/2018 | 0.851 mg/l | 0.0002 mg/l | 12.00 mg/l |
| 10/10/2018 | 0.715 mg/l | 0.0004 mg/l | 5.30 mg/l |
| 3/15/2019 | 1.688 mg/l | 0.0001 mg/l | 7.10 mg/l |
| 5/16/2019 | 1.117 mg/l | 0.0022 | 7.30 mg/l |

The Town of Goffstown quarterly sampling results from June 1, 2018 to May 31, 2019 indicated that they had not exceeded their allowable pounds per day for any of the parameters that were tested. The additional test results for aluminum, mercury and phosphorus are in the table below.

| The additional sampling of: | Aluminum | Mercury | Total Phosphorus |
|-----------------------------|------------|--------------|------------------|
| 7/26/2018 | 0.480 mg/l | 0.00001 mg/l | 3.80 mg/l |
| 10/10/2018 | 0.380 mg/l | 0.00010 mg/l | 8.70 mg/l |
| 3/15/2019 | 0.140 mg/l | 0.00001 mg/l | 9.20 mg/l |
| 5/16/2019 | 0.140 mg/l | 0.00001 mg/l | 5.10 mg/l |

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The Town of Londonderry quarterly sampling results from June 1, 2018 to May 31, 2019 indicated that they had not exceeded their allowable pounds per day for any of the parameters that was tested. The additional test results for aluminum, mercury and phosphorus are in the table below.

The additional sampling of: Aluminum Mercury Total Phosphorus

| | | | |
|------------|------------|--------------|-----------|
| 8/22/2018 | 0.770 mg/l | 0.00010 mg/l | 9.90 mg/l |
| 10/10/2018 | 0.570 mg/l | 0.00010 mg/l | 9.80 mg/l |
| 3/15/2019 | 0.310 mg/l | 0.00002 mg/l | 6.90 mg/l |
| 5/16/2019 | 0.160 mg/l | 0.00001 mg/l | 9.20 mg/l |

EPD will continue to monitor the influent and effluent for those parameters to ensure we are meeting the effluent requirements.

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Section Eight

Monitoring for Interference and Pass-Through

The City of Manchester, EPD has an active sampling and monitoring program for interference and pass-through. Below are the tests performed for the parameters listed through the reporting period.

1. Influent and Effluent monitoring for metals, total phosphorous, cyanide, volatile and semi-volatile organics (priority pollutant scan).
2. Quarterly toxicity testing as outlined within the NPDES Permit.
3. Monthly Sludge analysis for metals. Testing includes the required total metals analysis (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, and EPD added Al), but also included some TCLP and organics analysis when we landfill our sludge during incinerator shutdown.
4. Semi-Annual Ash monitoring for all priority pollutants.
5. Annual Grits & Screening for all priority pollutants.
6. Increased Class II Industrial sampling during permit renewals above what is required in the approved IPP.
7. Continued Effluent monitoring on a monthly basis. As of 2015, EPD has been monitoring the effluent twice a month for grab samples for Copper, Total Phosphorous due to the fact that those parameters are a requirement in our current NPDES permit. In 2019 EPD started sampling the influent and effluent for T. Nitrogen, TKN, Nitrite, Nitrate and PFAS.
8. Sampling of Intermunicipal Agreement communities (Bedford, Goffstown and Londonderry) for Local Limits metals of concern (Ag, Al, Cu, Pb, Hg, Zn and Total phosphorous). Due to EPA Interim Mercury Control Plan, EPD has been sampling the Towns on a monthly basis for mercury.
9. A requirement of the Town of Londonderry is to check their discharges for excessive metals, organics, sulfides and other inorganics.
10. The City shall comply with the Interim Mercury Control Plan instituted by EPA under the air emissions requirements. Below are control measures to assist in the investigation of mercury in our emissions.
 - a. Manchester currently maintains a sludge-monitoring program that satisfies State and Federal requirements. This program includes evaluation of new industrial customers prior to receiving their wastewater, ongoing periodic and routine monitoring of customer wastewater and

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monthly sampling of sludge feed to the Fluidized Bed Incinerator (FBI) as required by 40 CFR Part 503. All of the monitoring and sampling components of this program include mercury in their analyses.

- b. The IPP program to continue to evaluate (a) the self-monitoring reports submitted by all facilities discharging to the WWTP under a municipal Industrial Discharge Permit (each hereinafter an Industrial Permittee), and (b) the results of annual Industrial Permittee wastewater sampling performed by Manchester, to determine the facilities that have the highest mercury content of wastewater by weight discharged to the WWTP for the past three years (Industrial Permittee wastewater is sampled at least three times per year, twice per year for the self-monitoring reports and once per year by Manchester).
- c. On October 2018, EPD sent out to all Class I Industrial Permittee's letters requesting their assistance in reducing mercury in their wastewater discharges.
- d. Collect wastewater samples from the existing metering stations at the three towns that have Intermunicipal Agreements with Manchester (Bedford, Goffstown, and Londonderry) on a monthly basis, rather than the previous quarterly basis. This is to evaluate the Towns' mercury content of the wastewater by weight discharged to the WWTP. These results will determine whether a town exceeded its limit for mercury.
- e. In the event that the increased wastewater sampling identifies a mercury exceedance by a Town, Manchester will send an outreach letter to the Town's Department of Public Works asking for their assistance in reducing mercury in its wastewater discharge and scheduled a meeting with the Town to discuss how best to address the exceedance.
- f. The IPP program has increase dental office inspections under the Industrial Pretreatment Program's Dental Amalgam Program from every two years to every year. Currently EPD has started another round of inspections and predicts that by mid-September all inspections will be completed.

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Section Nine

Reduction Efforts for SNC SIUs

The City of Manchester, EPD continues to be diligent in notifying each industry of potential late sampling and reporting requirements as outlined in their permits. The industrial sampling, both City unannounced and industrial self-monitoring indicate that all permitted Class I CIUs/SIUs are discharging within their categorical and/or headworks loading concentrations.

The City of Manchester, EPD is continuing to take a proactive approach in investigating potential industries. We conduct an initial walk through, gather flow information (water consumption) with the City's billing department of potential industries, and log them into the database.

EPD joined the City of Manchester's Local Emergency Planning Committee (LEPC). Unfortunately due to continued logistical issues there has not been any recent activity. The City has hired a new Emergency Management Coordinator and EPD did reach out to establish our involvement.

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Section Ten
Local Limits Adoption

The local limits are current and technically based. The EPA accepted the limits with notification to the City of Manchester on March 18, 1997. The City formerly adopted the limits within the Sewer Use Ordinance on August 5, 1997.

The City of Manchester's NPDES permit became effective May 1, 2015. A requirement was to submit, within 180 days of the effective date of the permit November 8, 2015, a "Reassessment of Technically Based Local Limits."

On October 26, 2015 EPD submitted to EPA its Reassessment of the Technically Based Local Limits. The City believes that the information confirms that Manchester's present Local Limits Headwork's Allocation is sound, conservative and protective of the wastewater treatment operations. The new discharge permit requires monthly monitoring of effluent copper with an average monthly limit of 24 ug/l. We have a chronic toxicity-reporting requirement of >8.5% for NOEC and an acute toxicity requirement of an LC50 of >100%.

EPD is anticipating another review of the technically based local limits during the upcoming year when the new permit will be reviewed and issued in 2020.